<u>Directions:</u> This assessment has 2 questions, for a total of 20 points. You must show all of your work to receive full credit for an answer. Remember, you may not use a calculator or any other resources during this assessment. Good luck!!

First Name: ————————————————— Last Name: ————————————————— # --------

1. (10 points) Determine if the series $\sum\limits_{n=1}^{\infty} \frac{n^2}{n^4+1}$ converges or diverges.

2. (10 points) Use the limit comparison test to determine if the series $\sum\limits_{n=1}^{\infty} \frac{1}{n^4-7}$ converges or diverges.